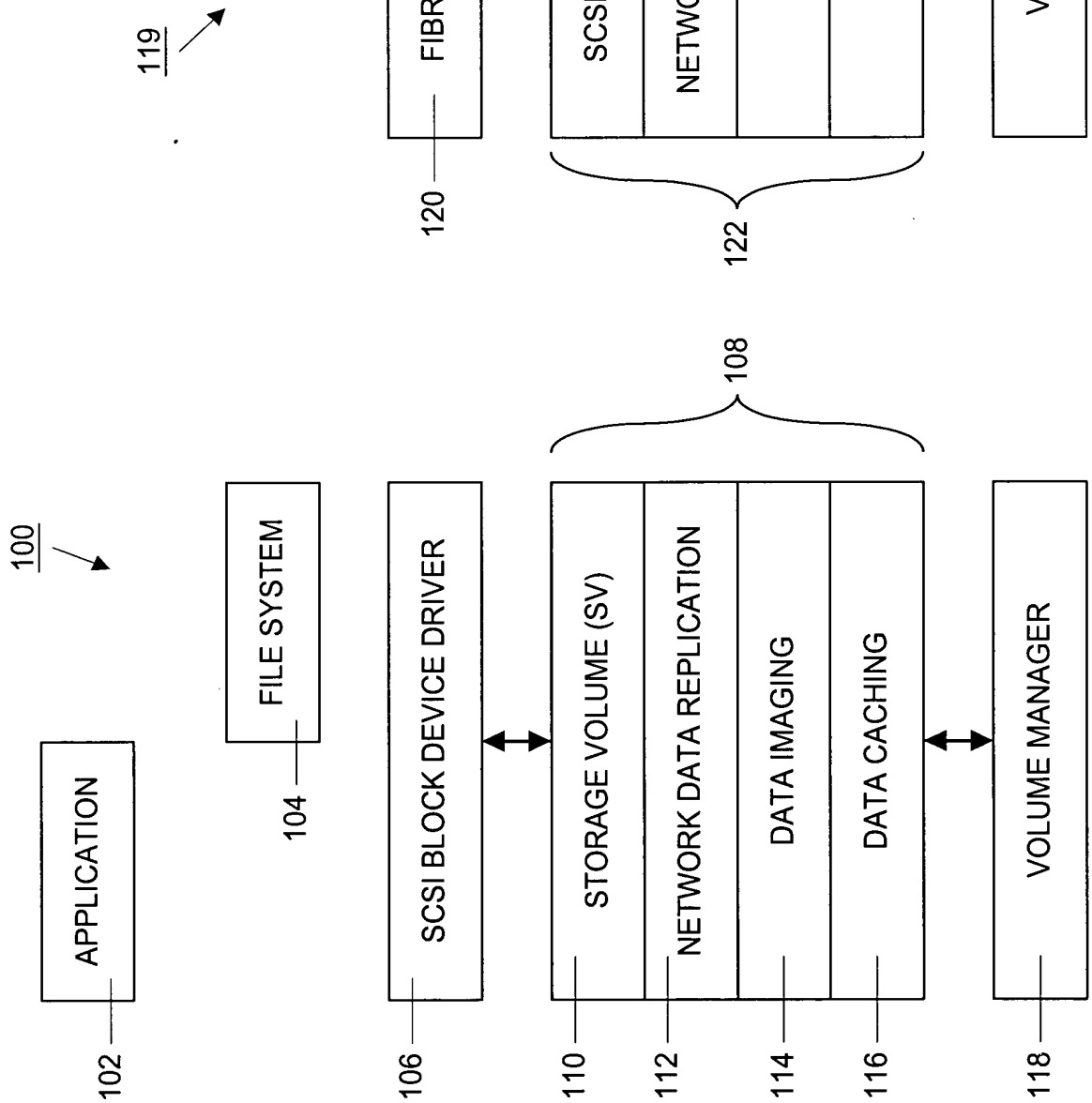
100
APPLICATION
102
FILE SYSTEM
104
SCSI BLOCK DEVICE DRIVER
106
STORAGE VOLUME (SV)
110
NETWORK DATA REPLICATION
112
DATA IMAGING
114
DATA CACHING
116
VOLUME MANAGER
118
108

FIG. 1A

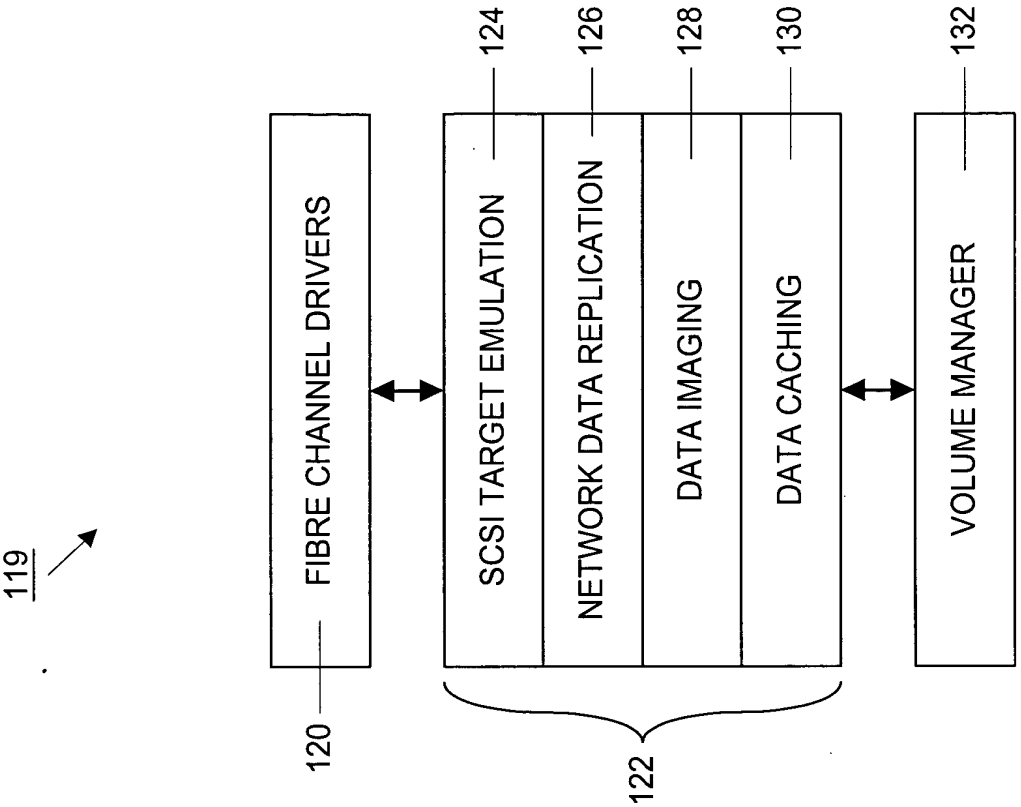
119
FIBRE CHANNEL DRIVERS
120
SCSI TARGET EMULATION
124
NETWORK DATA REPLICATION
126
DATA IMAGING
128
DATA CACHING
130
VOLUME MANAGER
132
122

FIG. 1B

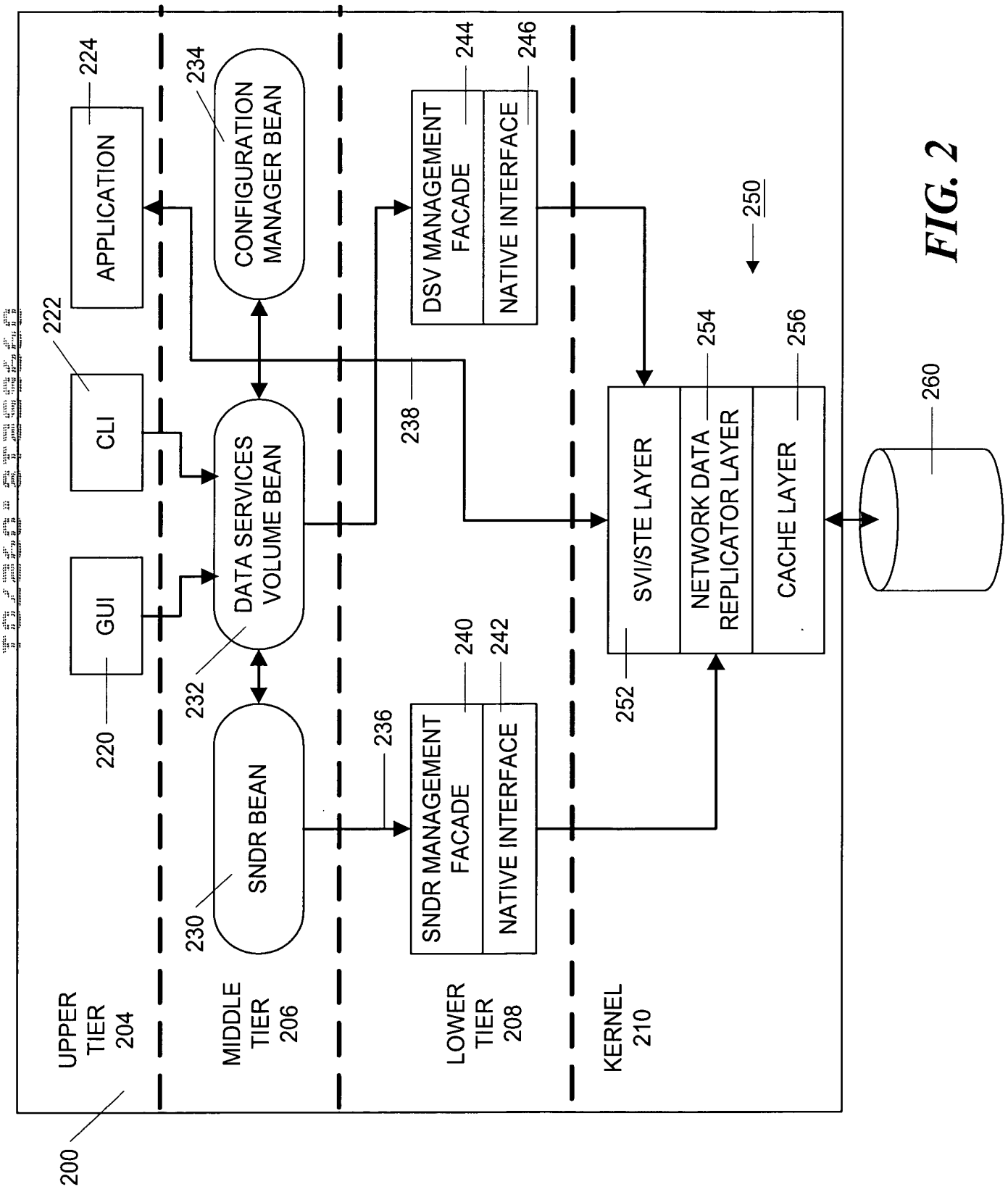
200
UPPER TIER 204
MIDDLE TIER 206
LOWER TIER 208
KERNEL 210
220
GUI
222
CLI
224
APPLICATION
230
SNDR BEAN
232
DATA SERVICES VOLUME BEAN
234
CONFIGURATION MANAGER BEAN
236
238
240
SNDR MANAGEMENT FACADE
242
NATIVE INTERFACE
244
DSV MANAGEMENT FACADE
246
NATIVE INTERFACE
250
252
SVI/STE LAYER
254
NETWORK DATA REPLICATOR LAYER
256
CACHE LAYER
260

FIG. 2

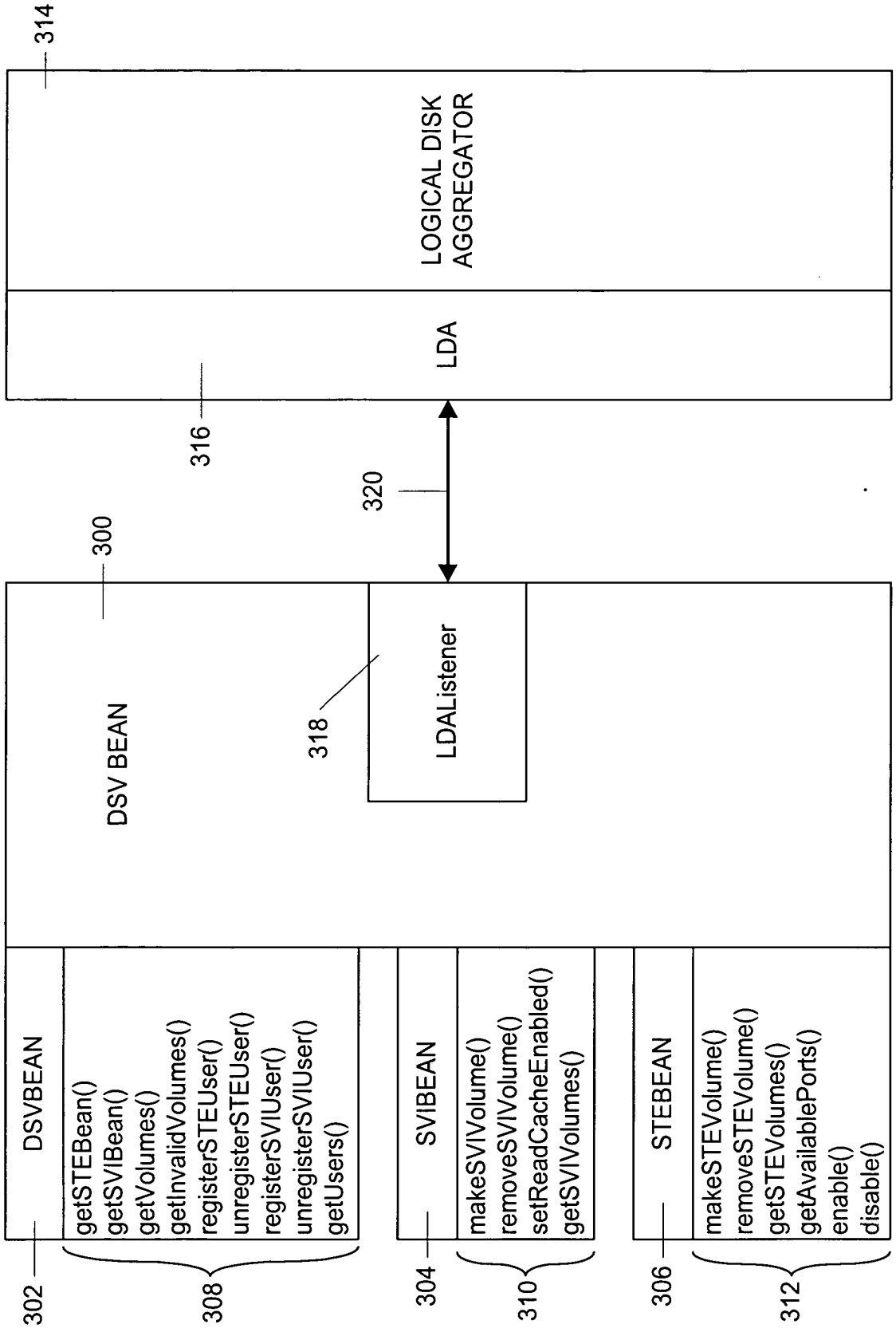
314
LOGICAL DISK AGGREGATOR
LDA
316
320
300
DSV BEAN
318
LDAListener
302
DSVBEAN
getSTEBean()
getSVIBean()
getVolumes()
getInvalidVolumes()
registerSTEUser()
unregisterSTEUser()
registerSVIUser()
unregisterSVIUser()
getUsers()
308
304
SVIBEAN
makeSVIVolume()
removeSVIVolume()
setReadCacheEnabled()
getSVIVolumes()
310
306
STEBEAN
makeSTEVolume()
removeSTEVolume()
getSTEVolumes()
getAvailablePorts()
enable()
disable()
312

FIG. 3

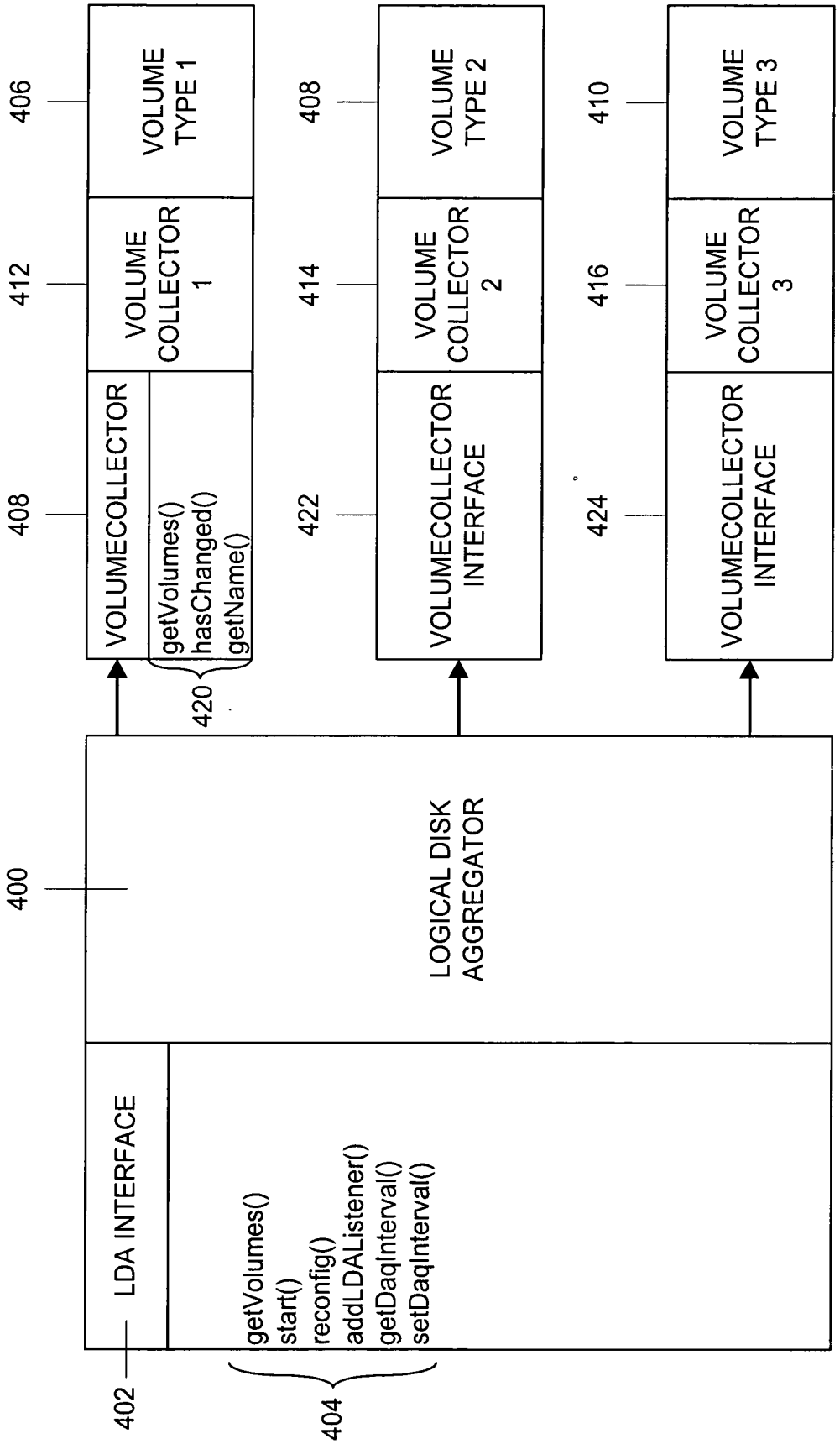
400
LOGICAL DISK AGGREGATOR
402
LDA INTERFACE
404
getVolumes()
start()
reconfig()
addLDAListener()
getDaqInterval()
setDaqInterval()
406
VOLUME TYPE 1
408
VOLUME TYPE 2
410
VOLUME TYPE 3
412
VOLUME COLLECTOR 1
414
VOLUME COLLECTOR 2
416
VOLUME COLLECTOR 3
408
VOLUMECOLLECTOR
420
getVolumes()
hasChanged()
getName()
422
VOLUMECOLLECTOR INTERFACE
424
VOLUMECOLLECTOR INTERFACE

FIG. 4

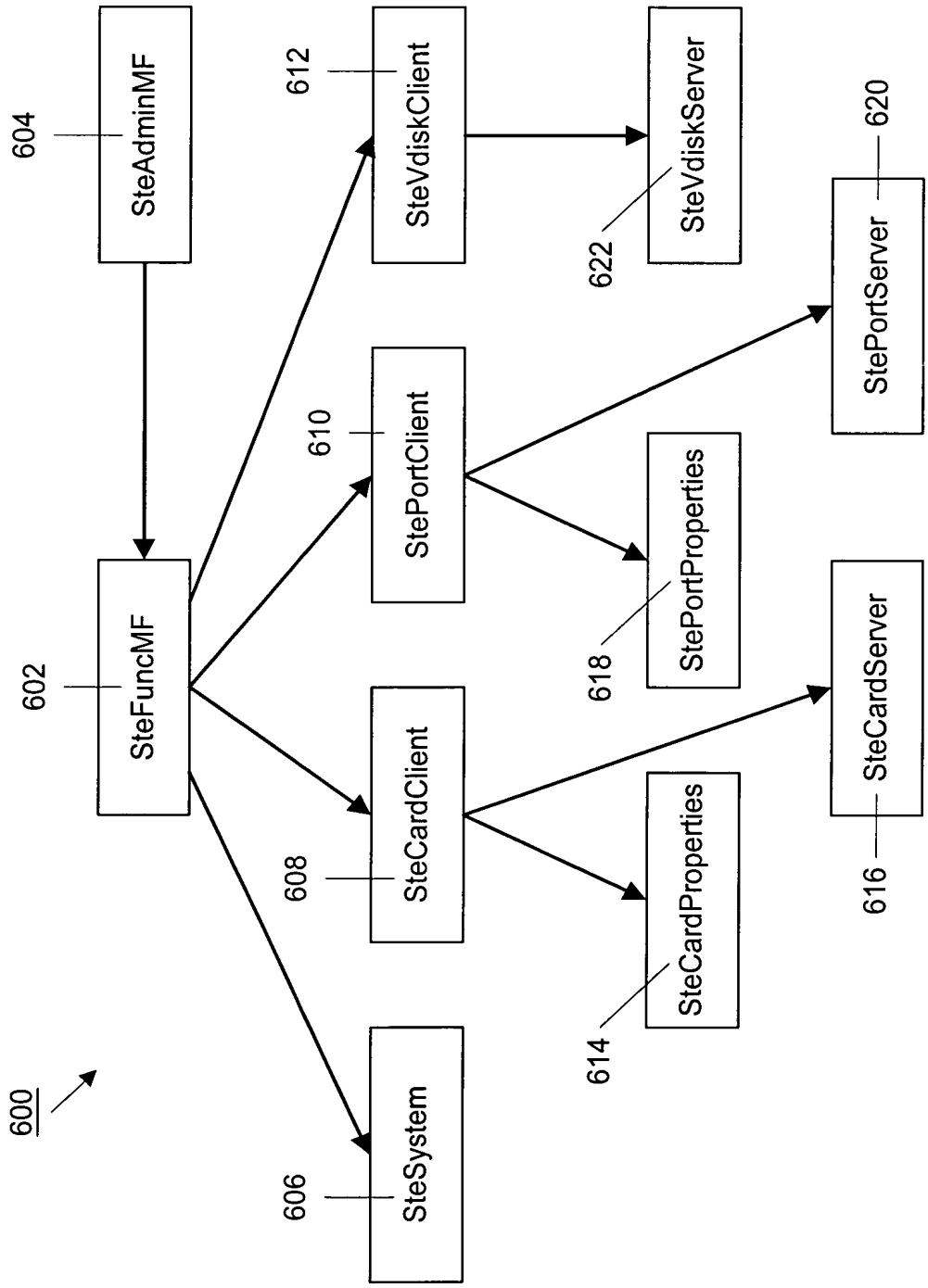
600
SteAdminMF
604
SteFuncMF
602
SteSystem
606
SteCardClient
608
SteCardProperties
614
SteCardServer
616
StePortClient
610
StePortProperties
618
StePortServer
620
SteVdiskClient
612
SteVdiskServer
622

FIG. 6

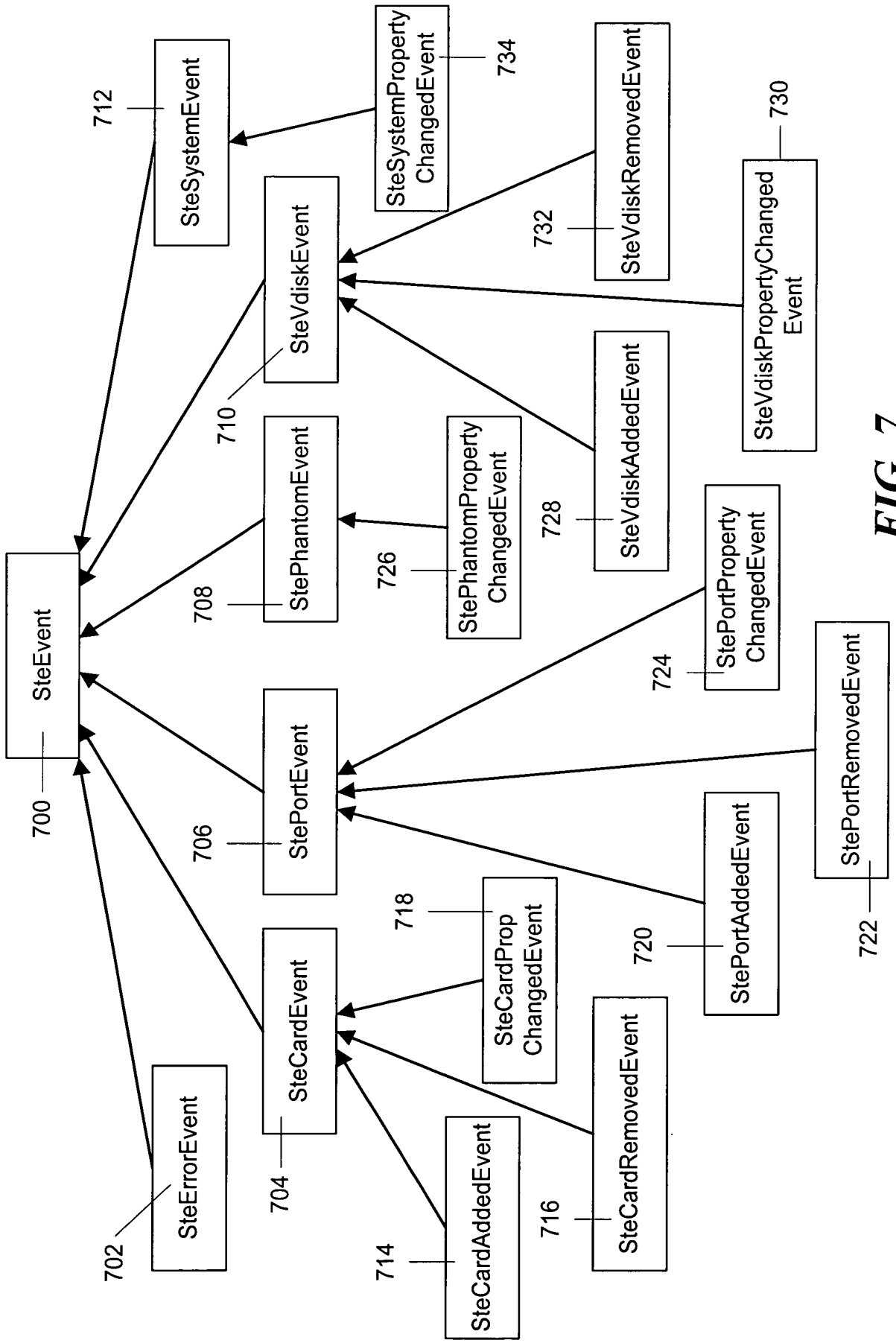
SteEvent
700
SteSystemEvent
712
SteSystemProperty ChangedEvent
734
SteVdiskEvent
710
SteVdiskRemovedEvent
732
SteVdiskPropertyChanged Event
730
SteVdiskAddedEvent
728
StePhantomEvent
708
StePhantomProperty ChangedEvent
726
StePortEvent
706
StePortProperty ChangedEvent
724
StePortRemovedEvent
722
StePortAddedEvent
720
SteCardEvent
704
SteCardProp ChangedEvent
718
SteCardRemovedEvent
716
SteCardAddedEvent
714
SteErrorEvent
702

FIG. 7

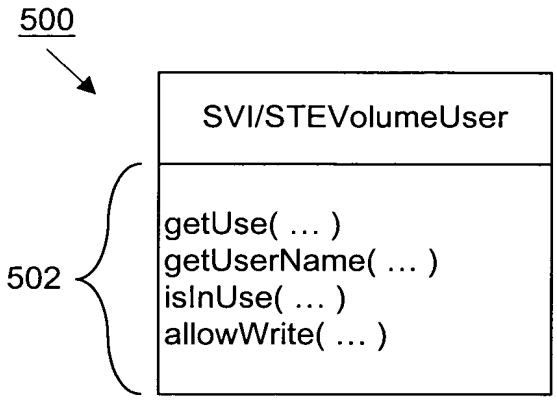
500
SVI/STEVolumeUser
getUse(...)
getUserName(...)
isInUse(...)
allowWrite(...)
502

FIG. 5

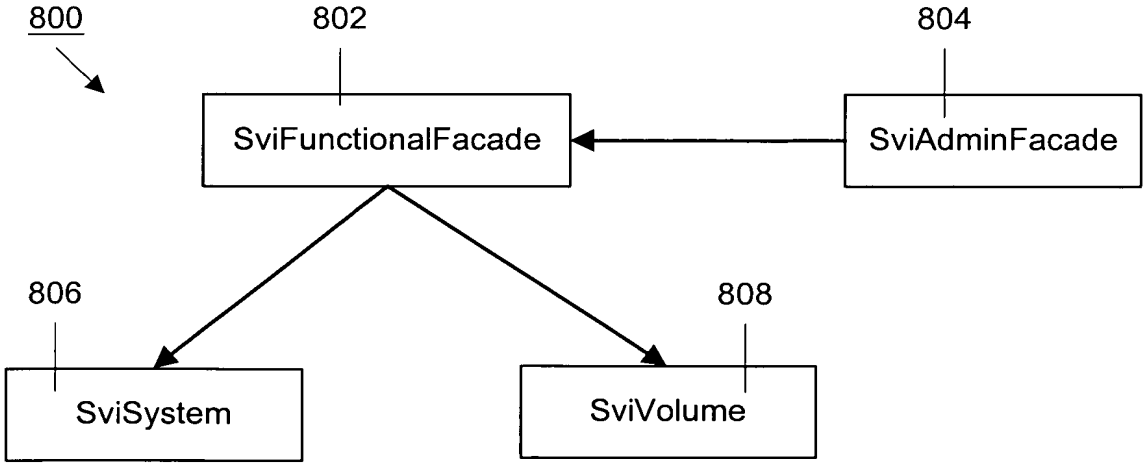
800
802
804
SviFunctionalFacade
SviAdminFacade
806
808
SviSystem
SviVolume

FIG. 8

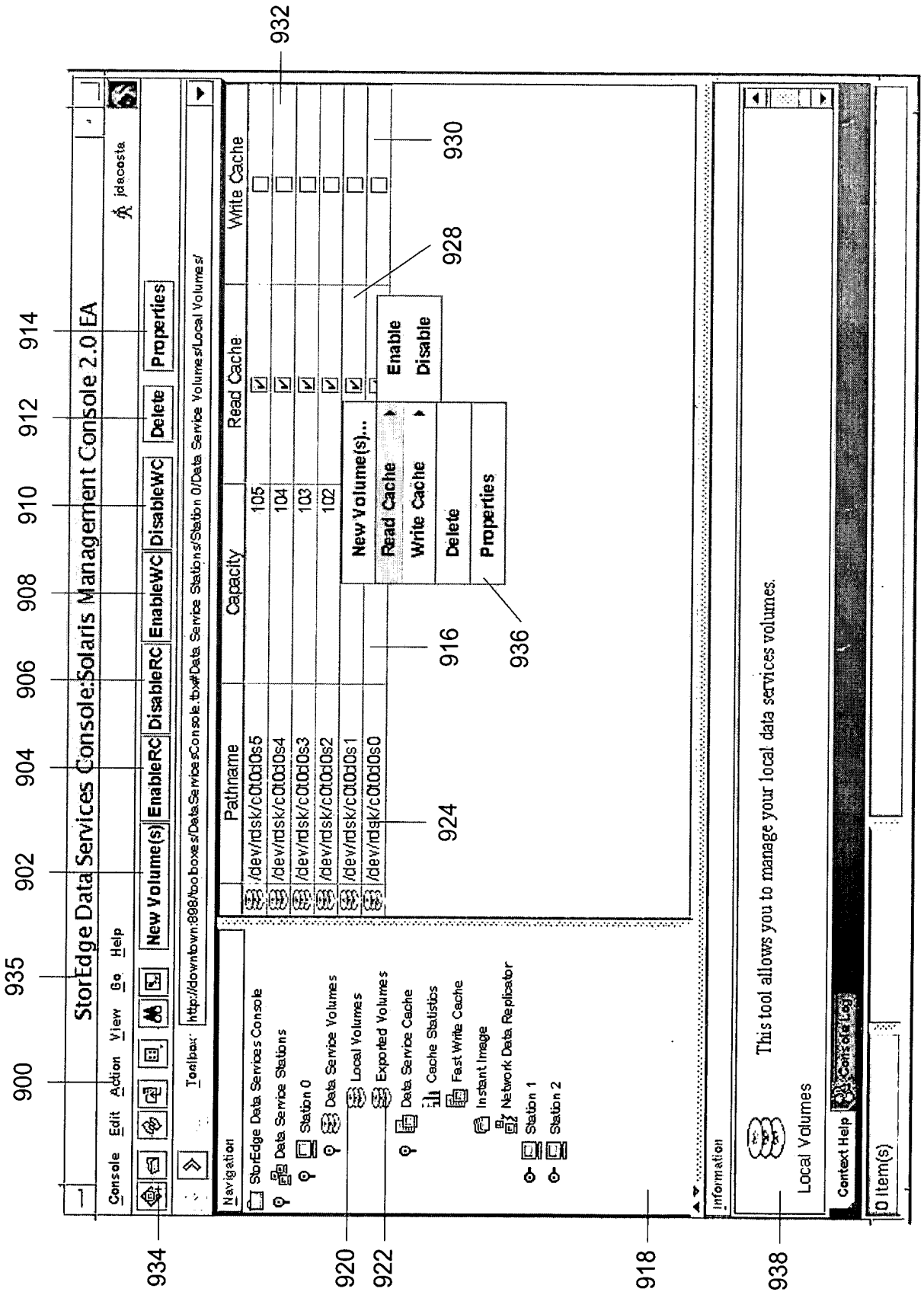
StorEdge Data Services Console:Solaris Management Console 2.0 EA
Console Edit Action View Go Help
jdacosta
Toolbox
http://downtown:898/toolboxes/DataServiceConsole.tbx#Data Service Stations/Station 0/Data Service Volumes/Local Volumes/
New Volume(s)
EnableRC
DisableRC
EnableWC
DisableWC
Delete
Properties
Navigation
StorEdge Data Services Console
Data Service Stations
Station 0
Data Service Volumes
Local Volumes
Exported Volumes
Data Service Cache
Cache Statistics
Fast Write Cache
Instant Image
Network Data Replicator
Station 1
Station 2
Pathname
Capacity
Read Cache
Write Cache
/dev/rdsk/c0t0d0s5
/dev/rdsk/c0t0d0s4
/dev/rdsk/c0t0d0s3
/dev/rdsk/c0t0d0s2
/dev/rdsk/c0t0d0s1
/dev/rdsk/c0t0d0s0
105
104
103
102
New Volume(s)...
Read Cache
Write Cache
Delete
Properties
Enable
Disable
Information
This tool allows you to manage your local data services volumes.
Local Volumes
Context Help
Console Log
0 Item(s)
900
902
904
906
908
910
912
914
916
918
920
922
924
928
930
932
934
935
936
938

FIG. 9

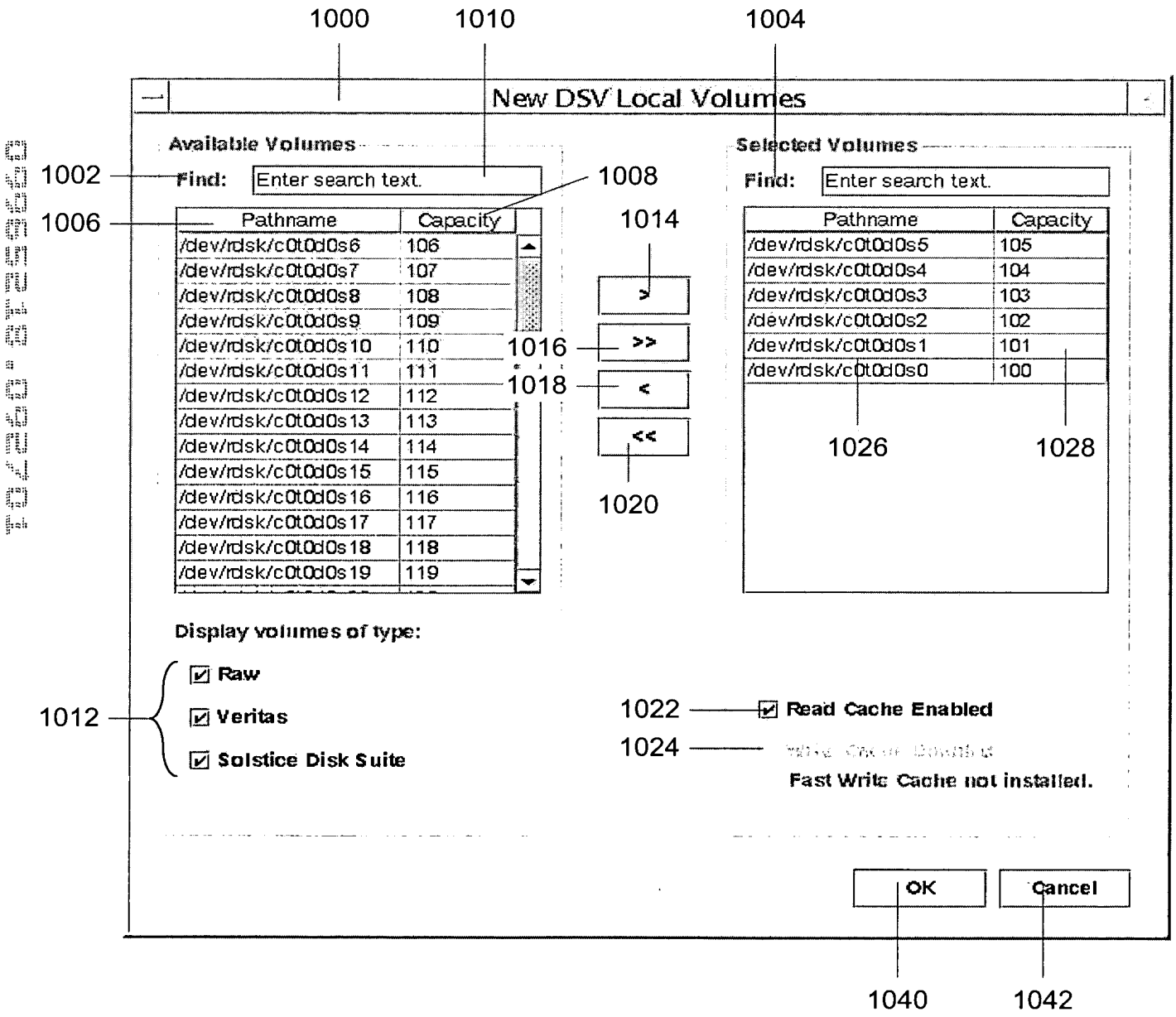
1000
1010
1004
New DSV Local Volumes
Available Volumes
1002
Find:
Enter search text.
1008
1006
Pathname
Capacity
/dev/rdsk/c0t0d0s6 106
/dev/rdsk/c0t0d0s7 107
/dev/rdsk/c0t0d0s8 108
/dev/rdsk/c0t0d0s9 109
/dev/rdsk/c0t0d0s10 110
/dev/rdsk/c0t0d0s11 111
/dev/rdsk/c0t0d0s12 112
/dev/rdsk/c0t0d0s13 113
/dev/rdsk/c0t0d0s14 114
/dev/rdsk/c0t0d0s15 115
/dev/rdsk/c0t0d0s16 116
/dev/rdsk/c0t0d0s17 117
/dev/rdsk/c0t0d0s18 118
/dev/rdsk/c0t0d0s19 119
1014
>
1016
>>
1018
<
<<
1020
Selected Volumes
Find:
Enter search text.
Pathname
Capacity
/dev/rdsk/c0t0d0s5 105
/dev/rdsk/c0t0d0s4 104
/dev/rdsk/c0t0d0s3 103
/dev/rdsk/c0t0d0s2 102
/dev/rdsk/c0t0d0s1 101
/dev/rdsk/c0t0d0s0 100
1026
1028
Display volumes of type:
1012
Raw
Veritas
Solstice Disk Suite
1022
Read Cache Enabled
1024
Fast Write Cache not installed.
OK
Cancel
1040
1042

FIG. 10

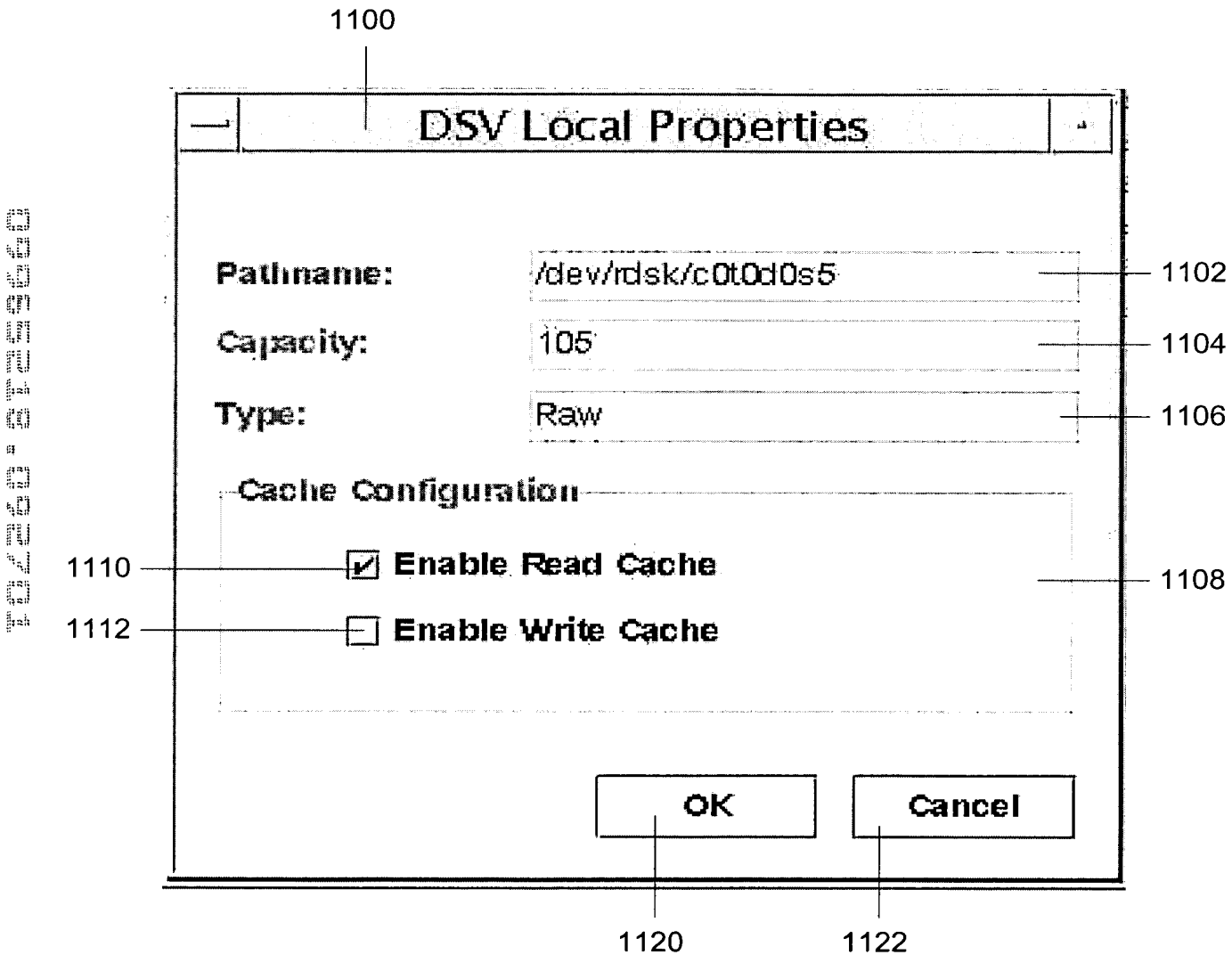
1100
DSV Local Properties
Pathname:
/dev/rdsk/c0t0d0s5
1102
Capacity:
105
1104
Type:
Raw
1106
Cache Configuration
1110
Enable Read Cache
1108
1112
Enable Write Cache
OK
Cancel
1120
1122

FIG. 11

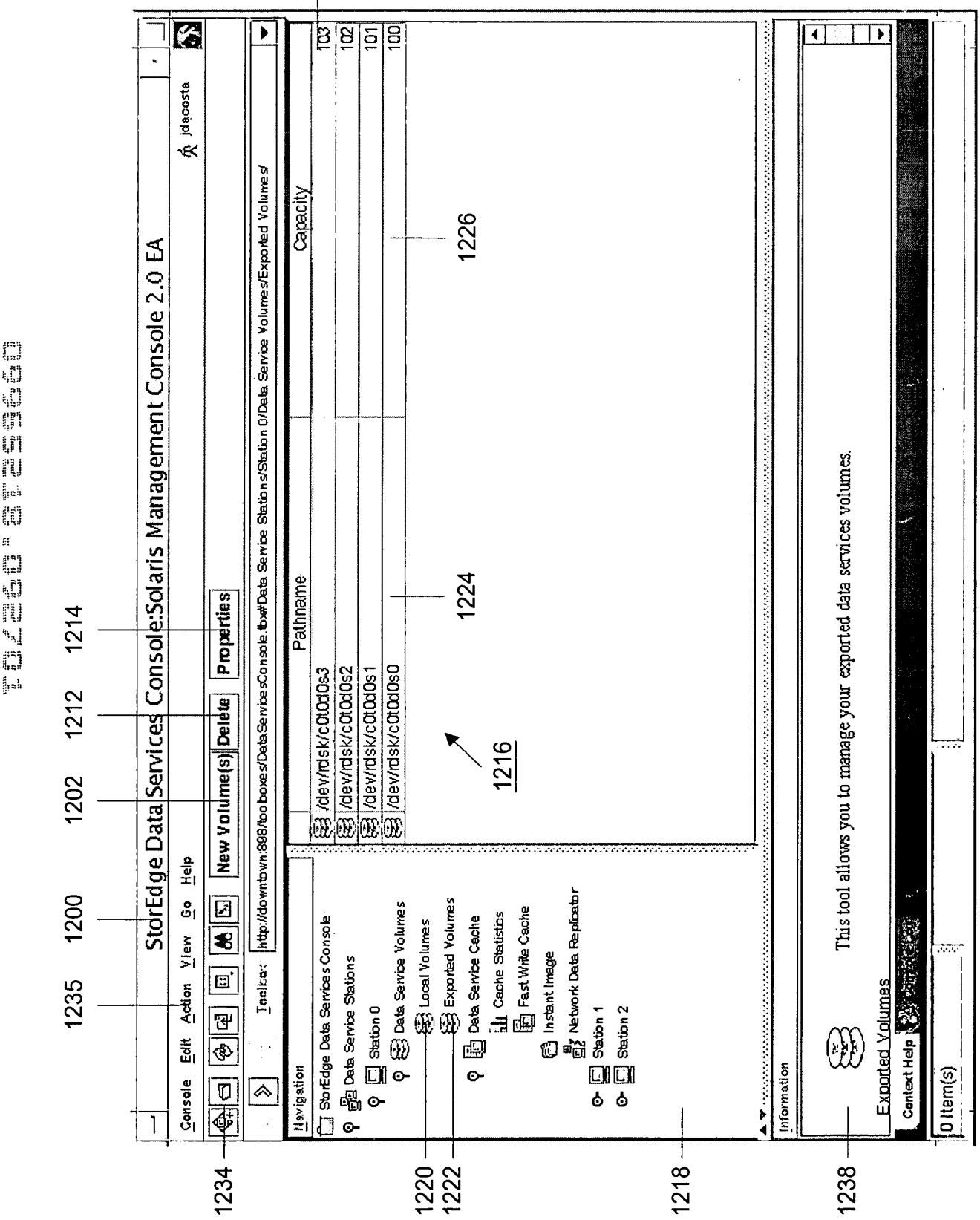
1232
1235
1200
1202
1212
1214
StorEdge Data Services Console:Solaris Management Console 2.0 EA
Console Edit Action View Go Help
New Volume(s)
Delete
Properties
jdacosta
Toolbox: http://downtown:898/toolboxes/DataServicesConsole.tbx#Data Service Stations/Station 0/Data Service Volumes/Exported Volumes/
Navigation
StorEdge Data Services Console
Data Service Stations
Station 0
Data Service Volumes
Local Volumes
Exported Volumes
Data Service Cache
Cache Statistics
Fast Write Cache
Instant Image
Network Data Replicator
Station 1
Station 2
Pathname
Capacity
/dev/rdsk/c0t0d0s3 103
/dev/rdsk/c0t0d0s2 102
/dev/rdsk/c0t0d0s1 101
/dev/rdsk/c0t0d0s0 100
1224
1226
1216
Information
This tool allows you to manage your exported data services volumes.
Exported Volumes
Context Help
0 Item(s)
1234
1220
1222
1218
1238

FIG. 12

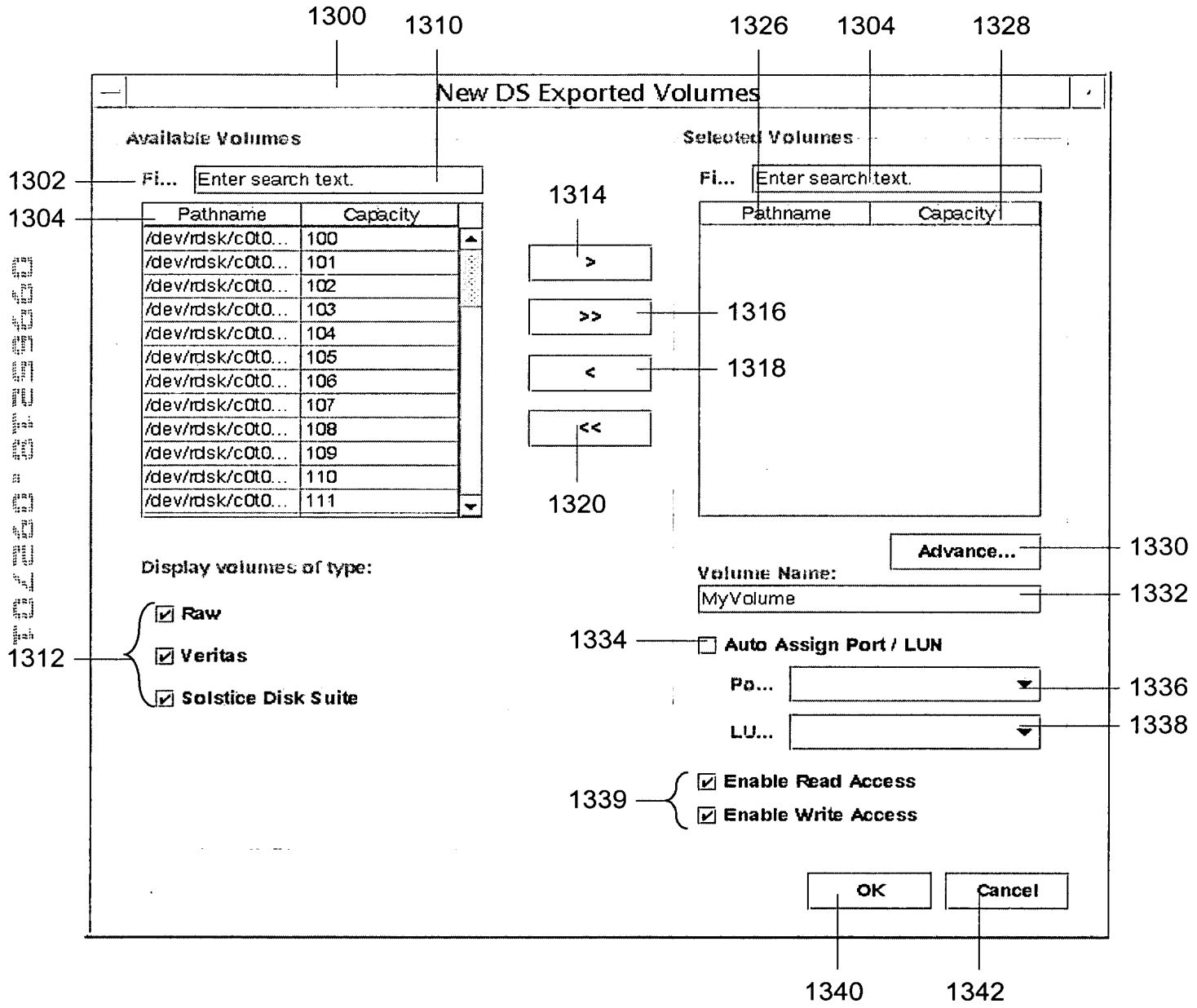
1300
1310
1326
1304
1328
New DS Exported Volumes
Available Volumes
Selected Volumes
1302
Fi...
Enter search text.
Fi...
Enter search text.
1304
Pathname
Capacity
Pathname
Capacity
/dev/rdsk/c0t0... 100
/dev/rdsk/c0t0... 101
/dev/rdsk/c0t0... 102
/dev/rdsk/c0t0... 103
/dev/rdsk/c0t0... 104
/dev/rdsk/c0t0... 105
/dev/rdsk/c0t0... 106
/dev/rdsk/c0t0... 107
/dev/rdsk/c0t0... 108
/dev/rdsk/c0t0... 109
/dev/rdsk/c0t0... 110
/dev/rdsk/c0t0... 111
1314
>
>>
1316
<
1318
<<
1320
Advance...
1330
Display volumes of type:
Volume Name:
MyVolume
1332
1312
Raw
Veritas
Solstice Disk Suite
1334
Auto Assign Port / LUN
Po...
1336
LU...
1338
1339
Enable Read Access
Enable Write Access
OK
Cancel
1340
1342

FIG. 13

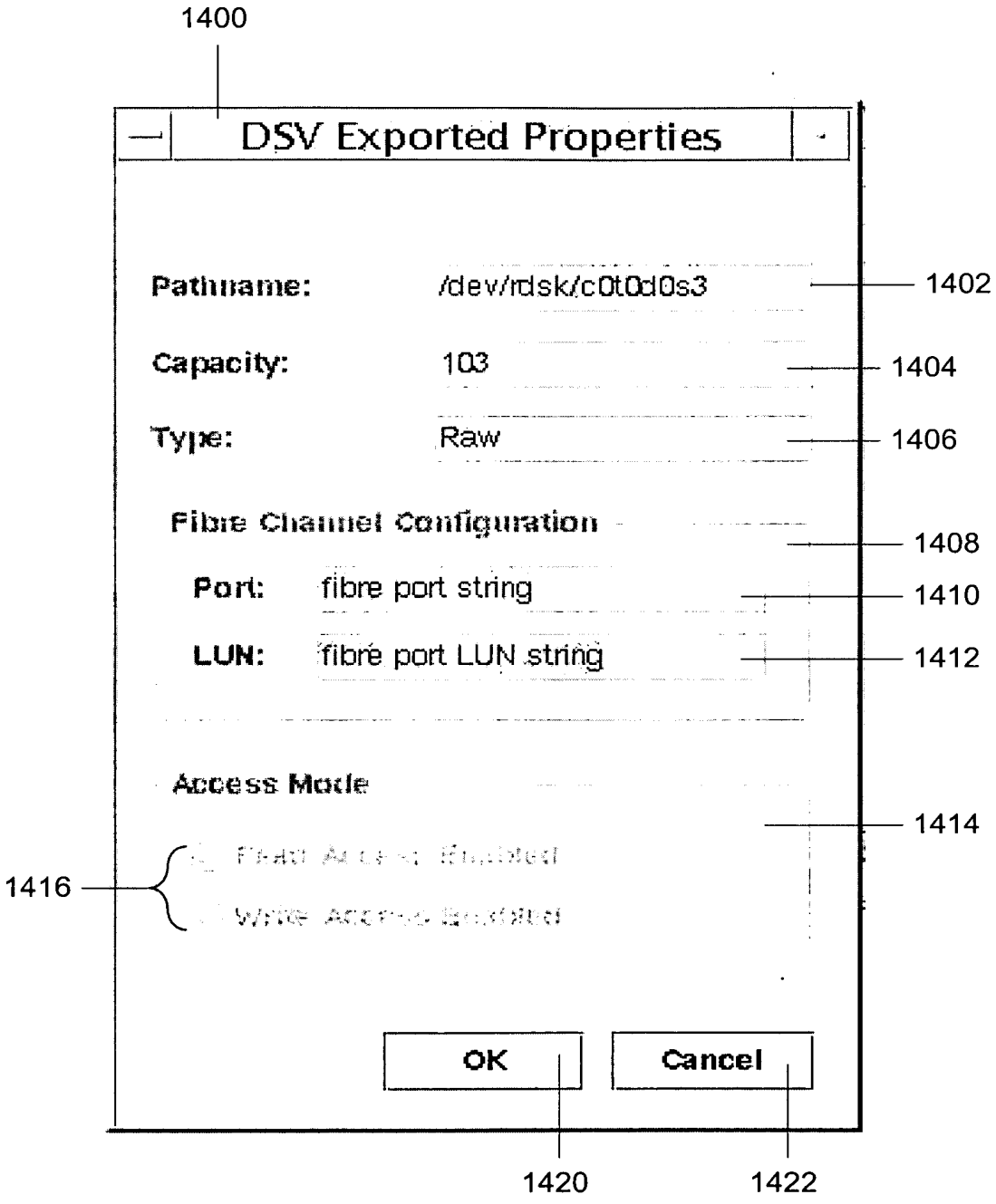
1400
DSV Exported Properties
Pathname:
/dev/rdsk/c0t0d0s3
1402
Capacity:
103
1404
Type:
Raw
1406
Fibre Channel Configuration
1408
Port:
fibre port string
1410
LUN:
fibre port LUN string
1412
Access Mode
1414
1416
OK
Cancel
1420
1422

FIG. 14

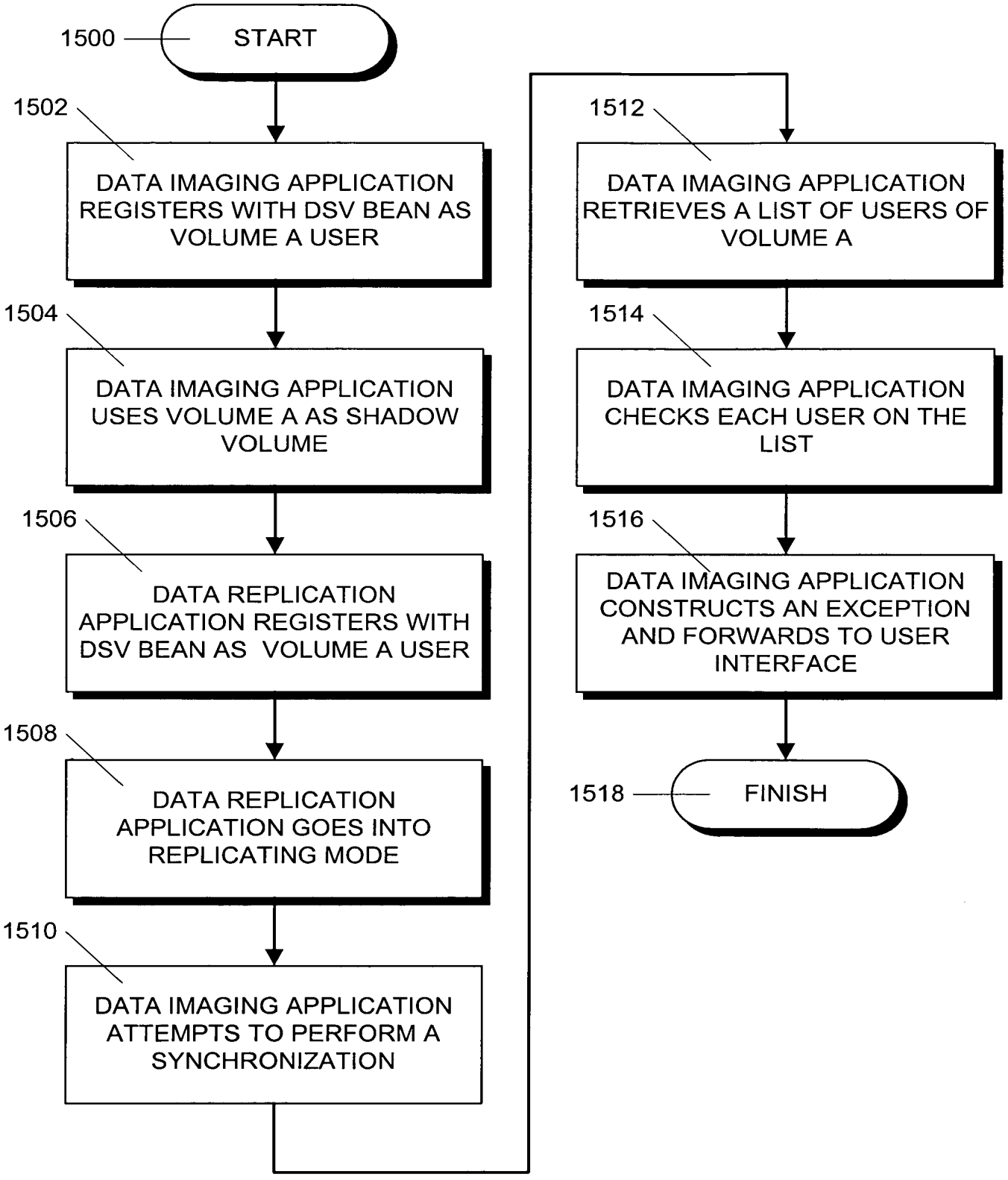
1500
START
1502
DATA IMAGING APPLICATION REGISTERS WITH DSV BEAN AS VOLUME A USER
1504
DATA IMAGING APPLICATION USES VOLUME A AS SHADOW VOLUME
1506
DATA REPLICATION APPLICATION REGISTERS WITH DSV BEAN AS VOLUME A USER
1508
DATA REPLICATION APPLICATION GOES INTO REPLICATING MODE
1510
DATA IMAGING APPLICATION ATTEMPTS TO PERFORM A SYNCHRONIZATION
1512
DATA IMAGING APPLICATION RETRIEVES A LIST OF USERS OF VOLUME A
1514
DATA IMAGING APPLICATION CHECKS EACH USER ON THE LIST
1516
DATA IMAGING APPLICATION CONSTRUCTS AN EXCEPTION AND FORWARDS TO USER INTERFACE
1518
FINISH

FIG. 15